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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,001	07/25/2003	Chad Brummitt	60130-1740; 03MRA0018	3718
26096	7590	07/30/2004	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			RODRIGUEZ, PAMELA	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/627,001

Applicant(s)

BRUMMITT, CHAD

Examiner

Pam Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/25/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 6 second line the term "backing plate portion 38" is inconsistent with that same element number description on page 5 paragraph 23 second line. In other words on page 5, element numeral 38 is called a "tacking plate portion 38", while on page 6 this same element numeral is referred to as a "backing plate portion 38". Clarification is requested. And on page 6 line 2 of paragraph 26 the numeral "20" should read -28—to be consistent with the previous number designation of the compression chamber.

Appropriate correction is required.

Claim Objections

2. Claims 8 and 10 are objected to because of the following informalities: in line 4 of Claim 8, the phrase "a piston comprising" should read -a piston assembly comprising—to provide proper antecedent basis for this same term in the remaining lines of the claim and in line 2 of Claim 10 the phrase "arrange the passages" is not grammatically correct. Perhaps the phrase should read -arranged in the passages--?. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,887,857 to Perrin.

Regarding Claim 1, Perrin discloses a method of moving a vehicle closure (see column 1 lines 5-10) between multiple positions using a fluid spring (see Figure 2) comprising all the steps of the instant invention including: applying a first force (i.e., initial lifting of the hatchback) to the closure until the closure reaches a first position (see column 4 lines 49-57); b) maintaining the closure in the first position with a stop zone 58A in the fluid spring without application of an external force (see column 4 lines 55-57); c) applying a second force greater (the force needed to close the hatchback or the weight of the hatchback itself) than the first force to move the closure from the stop zone 58A to a travel zone 56A (see column 5 lines 23-33); and d) moving the closure through the travel zone 56A with the fluid spring to a second stop position (i.e., when the hatchback is closed).

Regarding Claim 2, Perrin further discloses that the fluid spring includes a cylinder having a groove 56A defining the travel zone.

Regarding Claim 3, Perrin discloses that the cylinder includes a length adjoining the groove 56A defining the stop zone 58A (see Figure 2).

Regarding Claim 4, Perrin discloses a fluid spring (see Figure 2) for opening a vehicle closure comprising: a cylinder 10 having first and second fluid chambers (see Figure 2 and the chambers 34 and 32 located above and below the piston 26); a piston assembly 26 disposed in said cylinder and separating said first and second fluid chambers (see Figure 2); a travel zone 56A/56B defined by a first length of said cylinder; and a stop zone 58A/58B defined by a second length of said cylinder adjoining said first length, said piston assembly 26 maintained in an axial position relative to said cylinder in said stop zone 58A/58B (see column 4 lines 55-57 and column 5 lines 3-21), said piston assembly permitted to move relative to said cylinder in said stop zone portion 58A in response to a first force (i.e., the first force being the initial lifting of the hatchback as discussed in column 4 lines 49-57), and said piston assembly permitted to move relative to said cylinder in said travel zone 56B in response to a second force less than said first force (i.e., the second force being a further slight lifting of the hatchback to a further open position as discussed in column 5 lines 3-21).

Regarding Claim 5, Perrin discloses that the travel zone includes at least one groove 56A/56B in said cylinder along said first length.

Regarding Claim 6, Perrin discloses that the fluid spring includes multiple travel zones 56A and 56B.

Regarding Claim 7, Perrin discloses that the fluid spring includes multiple stop zones 58A and 58B.

Regarding Claim 8, Perrin discloses a fluid spring comprising: a cylinder 10 having an inner wall and opposing ends (see Figure 2), said cylinder defining first and

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second fluid chambers (see the chambers 32 and 34 on either side of piston 26); a piston assembly comprising a piston 26 and a rod 18, with said rod having an end portion supporting said piston, said piston assembly including first and second passages (see Figure 2 and passage 65 and the passage 28), at least one seal 30 supported by said piston assembly and at least partially arranged within said first and second passages (note how seal 30 is located in the lower portion of passage 28 and the upper portion of passage 65) selectively permitting fluid flow between said first and second chambers; a stop zone 58A defined by a length of said cylinder; and a travel zone 56A defined by a groove in said cylinder adjoining said stop zone 58A, with said groove 56A spaced from said seal 30 creating a fluid leak past said piston assembly (see column 4 lines 51 et al).

Regarding Claim 11, Perrin discloses that the first chamber 32 is a compression chamber and said second chamber 34 is an extension chamber, said fluid flowing through said first passage 65 during a compression stroke (see column 5 lines 23-33) and said fluid flowing through said second passage 28 during an extension stroke (i.e., inherently fluid would flow through passage 28 during an extension stroke).

Regarding Claim 12, Perrin discloses that the cylinder includes multiple grooves 56A and 56B axially spaced from one another defining multiple travel zones.

Regarding Claim 13, the fluid spring includes multiple stop zones 58A and 58B.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,887,857 to Perrin in view of U.S. Patent No. 5,575,484 to Burke.

Regarding Claims 9 and 10, Perrin discloses a seal 30 including first and second lips (i.e., the top and bottom surfaces of seal 30), wherein the first and second lips are arranged within the first and second passages 65 and 28, as described with reference to Claim 8 above, and wherein the first lip (the top surface of seal 30) engages the inner wall of the cylinder 10 (see Figure 2).

However, Perrin does not disclose that the lips are angled in opposite directions (Claim 9) nor that the seal includes an axial protrusion (Claim 10).

Burke is relied upon merely for his teachings of a piston seal 10 (see Figure 1) having first and second lips 34 and 28 which are angled in opposite directions and seal 10 also includes an axial projection 60.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the seal of Perrin to include oppositely angled lips and an axial protrusion as taught by Burke in order to provide the seal with an increased deflection property and an increased piston stroke for the piston in which the seal is housed while still maintaining a reliable seal.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koch et al and Kaptanis disclose fluid springs having cylinders with multiple travel and stop zones defined by grooves and lengths of the cylinders.

Oyaizu, Freitag et al., and Hosan et al disclose fluid springs having single grooves within their cylinder walls.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 703-308-3657. The examiner can normally be reached on Mondays 6 am -4 pm and Tuesdays 6 am -12 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Pam Rodriguez
Primary Examiner
Art Unit 3683

7/26/04

PR
07/26/04